

REMARKS

Applicant respectfully requests reconsideration of this application as amended. Claims 1-16 are pending in the application. Claims 1, 3, 5, 9, 11, and 13 have been amended. No claims have been added. No claims have been canceled.

Response to Objections

The Examiner has objected to the title. Applicant has amended the title and respectfully requests the withdrawal of the objection.

The Examiner has objected to the drawings for failing to comply with 37 CFR 1.84(p)(5) and the specification for informalities. Applicant has submitted replacement drawings for Figures 1-7. Figure 3 has been amended to include the reference numbers 120, 121, 122, and 123. Figure 4 has been amended to include the reference number 121. Figure 5 has been amended to include the reference number 121. By amending the Figures 3-5 to include reference numbers 120, 121, 122, and 123, the reference numbers 1, 2, and 3 have been used only to designate sever-client system 1, the server computer 2, and the network 3, not the decomposition levels 1, 2, and 3. Applicant respectfully submits that the specification has been amended, in paragraph [0065] to include the reference characters, 90p0, 90p1, and 90p2. Figures 1-7 have been amended to include a "Prior Art" legend. Accordingly, Applicant respectfully requests the withdrawal of the objections to the drawings and the specification.

The Examiner has objected to the specification. Applicant has amended the specification to correct the informalities, and respectfully requests the withdrawal of the objection.

Response to Rejections under 35 U.S.C. § 102(b)

The Office Action rejected claims 1, 3, 5, 9, 11, and 13 under 35 U.S.C. § 102(b) as being anticipated by The JPEP 200 Still Image Compression Standard, IEEE Signal Processing Magazine, Sept 2001, page 36-58 (hereinafter Skodras). Applicant respectfully requests withdrawal of these rejections because the cited reference fails to disclose all of the limitations of the claims.

Claim 1 stands rejected under 35 U.S.C. § 102(b) as being anticipated by JPEG 2000. Applicant respectfully submits that claim 1 is patentable over the cited reference because Skodras does not disclose all of the limitations of the claim. Claim 1, as amended, recites:

An image processing apparatus for hierarchically compressing and coding image data by subjecting pixel values of the image data to a discrete wavelet transform, quantization and coding for each of one or a plurality of rectangular regions into which the image data is divided, the image processing apparatus comprising:

a hierarchical coding unit to compress and code the image data in a state where the image data is divided for each hierarchical layer, to obtain compressed codes, wherein the hierarchical coding unit comprises:

a first-level coding unit to receive the image data and to create the compressed codes of a first hierarchical layer; and

a second-level coding unit to receive a sub-band of the first hierarchical layer from the first-level coding unit and to create the compressed codes of a second hierarchical layer, wherein the second hierarchical layer is a lower hierarchical layer than the first hierarchical layer; and

a distributively storing unit to distributively store the compressed codes that are divided for each hierarchical layer by the hierarchical coding unit, wherein the distributively storing unit comprises:

a first-level storing unit to store the compressed codes of the first hierarchical layer; and

a second-level storing unit to store the compressed codes of the second hierarchical layer. (Emphasis added).

Applicant respectfully submits that claim 1 requires that the hierarchical coding unit comprises a first-level coding unit and a second-level coding unit to create the compressed codes of a first hierarchical layer and a second hierarchical layer, respectively. Skodras fails to disclose at least these limitations.

Skodras is directed to the JPEG 2000 still image compression standard. Skodras, Title. Skodras discloses a JPEG 2000 compression engine (encoder and decoder). At the encoder, the discrete transform is first applied on the source image data. The transform coefficients are then quantized and entropy coded before forming the output code stream (bit stream). The decoder is the reverse of the encoder. The code stream is first entropy decoded, dequantized, and inverse discrete transformed, thus resulting in the reconstructed image data. More specifically, the source image is decomposed into components, the image components are decomposed into rectangular tiles (the basic unit of the original/reconstructed image), and a wavelet transform is applied on each tile. The tile is decomposed into different resolution levels. Although Skodras discloses a compression engine that decomposes tiles into different resolution levels, nothing in Skodras discloses that the compression engine includes two coding units, the first coding unit to create the compressed codes of the first level, and a second coding unit to receive a sub-band of

the first coding unit and to create the compressed codes of the second level. As such, Skodras fails to disclose at least these limitations of the claims.

Moreover, Applicant respectfully submits that claim 1 requires a distributively storing unit that includes two storing units, the first storing unit to store the compressed codes of the first hierarchical layer, and the second storing unit to store the compressed codes of the second hierarchical layer. Applicant respectfully submits that claim 1 fails to disclose at least these limitations. As described above, Skodras discloses a compression engine that decomposes tiles into different resolution lever; however, even if it is implicit or inherent that the image processing computer of Skodras has a memory storage unit, nothing in Skodras discloses that a distributively storing unit that distributively stores the compressed codes in a first-level storing unit to store the first hierarchical layer and in a second-level storing unit to store the second hierarchical layer. As such, Skodras fails to disclose at least these limitations of the claims.

Given that the cited reference fails to disclose all of the limitations of the claim, Applicant respectfully submits that claim 1 is patentable over the cited reference. Accordingly, Applicant requests that the rejection of claim 1 under 35 U.S.C. § 102(b) be withdrawn.

Applicant respectfully submits that claims 3, 5, 9, 11, and 13 are also patentable over the cited reference for similar reasons described above with respect to claim 1. Given that claims 6 and 14 depend from claims 5 and 13, respectively, which are patentable over the cited reference, Applicant respectfully submits that claims 6 and 14 are also patentable over the cited reference. Accordingly, Applicant requests that the rejections of claims 3, 5, 9, 11, and 13 under 35 U.S.C. § 102(b) and the rejections of claims 6 and 14 under 35 U.S.C. §103(a) be withdrawn.

Accordingly, Applicant respectfully submits that the rejection under 35 U.S.C. § 102(b) has been overcome by the amendments and the remarks. Applicant submits that claims 1, 3, 5-6, 9, 11, and 13-14 as amended are now in condition for allowance and such action is earnestly solicited.

Response to Rejections under 35 U.S.C. § 103(a)

The Office Action rejected claims 2, 4, 7, 10, 12, and 15 under 35 U.S.C. § 103(a) as being unpatentable Skodras in view of Qian. Applicant respectfully requests withdrawal of these rejections because the Office action has failed to establish a prima facie case of obviousness and the combination of cited references does not teach or suggest all of the limitations of the claim.

Claim 2 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Skodras in view of Qian. Applicant respectfully submits that claim 2 is patentable over the combination of cited references because the Office action has failed to establish a prima facie case of obviousness and the combination of cited references does not teach or suggest all of the limitations of the claim. Claim 2, as amended, recites:

An image processing apparatus for hierarchically compressing and coding image data by subjecting pixel values of the image data to a discrete wavelet transform, quantization and coding for each of one or a plurality of rectangular regions into which the image data is divided, the image processing apparatus forming an **electronic equipment which is coupled to a network having other electronic equipments coupled thereto**, and comprising:

a hierarchical coding unit to compress and code the image data in a state where the image data is divided for each hierarchical layer, to obtain compressed codes; and

a distributively storing unit to distributively store the compressed codes that are divided for each hierarchical layer by the hierarchical coding unit into a storage unit of each of the other electronic equipments. (Emphasis added).

Applicant respectfully submits that claim 1 requires electronic equipment which is coupled to a network having other electronic equipment coupled thereto and a distributively storing unit to distributively store the compressed codes that are divided for each hierarchical layer by the hierarchical coding unit into a storage unit of each of the other equipment electronics.

First, Applicant respectfully submits that the Office action has failed to establish a prima facie case of obviousness regarding the combination of the cited references because the Office action has only made a *conclusory statement* that it would have been obvious for the electronic equipment of Skodras to include other electronic components coupled thereto as taught by Qian and the distributively storing unit of Skodras to include storing the compressed codes of Skodras as taught by Qian “to develop a hierarchical data structure and method that enables association of descriptive data in an image,” without explaining what specific understanding or technological principle within the knowledge of one of ordinary skill in the art would have prompted one of ordinary skill in the art to combine the elements in the manner claimed. See Memorandum from Deputy Commissioner, May 3, 2007, regarding Supreme Court decision on *KSR Intl’l Co., v. Teleflex, Inc.* First, the Office action does not provide an explanation as to why one of ordinary skill in the art would have been prompted to combine Skodras and Qian with respect to the limitation of “electronic equipment *which is coupled to a network having other electronic equipments coupled thereto*” (emphasis added). Second, the Office Action merely states a

reason, namely “to develop a hierarchical data structure and method that enables association of descriptive data in an image,” for combining the two references with respect to the other limitation of “a distributively storing unit to distributively store the compressed codes that are divided for each hierarchical layer by the hierarchical coding unit into a storage unit of each of the other equipments. This reason, however, is inapposite.

Qian is directed to a hierarchical method and system for object-based audiovisual descriptive tagging of images for information retrieval, editing, and manipulation. Qian, Abstract. Qian discloses that the hierarchical data structure enables association of descriptive data to an image. Qian, col. 1, lines 59-61. The use of hierarchical data structure is used merely to allow objects or images to be tagged with additional content information to allow interaction with the user. Qian, col. 4, line 64 to col. 5, line 21. Although the image data and the descriptive data of the hierarchical data structure of Qian may be transmitted separately, and may be stored in a memory unit, such as memory in an electronic camera, or in a server, these teachings do not what specific understanding or technological principle within the knowledge of one of ordinary skill in the art would have been prompted them to combine the elements in the claimed manner. Furthermore, the use of hierarchical data structure, as taught by Qian, is used to enable association of descriptive data to allow objects or images to be tagged with additional content information to allow interaction with the user, not to allow distributive storing of compressed codes that are divided for each hierarchical layer into a storage unit of *each of the other electronic equipments*. Qian, col. 4, line 64 to col. 5, line 21. As such, the reasons provided by the Office action to combine the references is inapposite, and, thus, it would not have been obvious to one of ordinary skill in the art to include storing the compressed codes, as purported by the Office action. Accordingly, Applicant respectfully submits that the Office action has failed to a prima facie case of obviousness.

Second, even if a person of ordinary skill in the art would have been prompted to combine the cited references, the combination of cited references stills fail to disclose all the limitations of claim 1. As set forth in the Office action, Skodras does not disclose the electronic equipment which is coupled to a network having other electronic equipments coupled thereto and a distributively storing unit to distributively store the compressed codes into a storage unit of each of the other electronic equipments. Office action, mailed July 13, 2007, page 8. Qian also fails to disclose this limitation.

As described above, Qian is directed to a hierarchical method and system for object-based audiovisual descriptive tagging of images for information retrieval, editing, and manipulation. Qian, Abstract. In particular, associating information with images is useful to enable successful identification of images and the interchange of images among different applications. Qian, col. 1, lines 18-20. Qian discloses means for generating a hierarchical data structure for the image and for associating auxiliary information with the image, and means for transmission/storage mechanism for storing the image and the hierarchical data structure. In particular, as cited by the Office action, Qian discloses the use of a memory unit, e.g., memory in an electronic camera, or in a server to store the integrated image-content and the image data itself. Qian, col. 3, lines 31-36. The hierarchical data structure contains the information in two levels, a base layer that includes only content-related information indicators, and a second layer that includes the actual content-related information. Qian, col. 3, lines 15-20. The content-related information indicators indicate whether additional content-related information is available for a region (e.g., bounding rectangles of different image objects, as well as precise contour data). The second layer carries the actual content-related information. Qian, col. 4, lines 57-64. Although the invention of Qian is designed to work with any image compression standard, such as JPEG 2000, and an example is given in the context of an networking application, Qian only discloses initially transmitting the compressed image and the base layer of its associated content-related information, and after initial downloading, a user may view the image and may also decide to interact with the contents of the image, such as by clicking on regions or object in which the user may be interested. Upon selecting one item in the menu, which is displayed when clicked, the system will start downloading the related information stored in the second layer. Qian, col. 4, line 64 to col. 5, line 21. As such, the hierarchical data structure of Qian is used to enable object-based audiovisual descriptive tagging by allowing additional image data to be associated with the image data, not to distributively store the compressed codes *into a storage unit of each of the other electronic equipments*, as required by claim 2. Although Qian discloses a memory unit, such as a memory in an electronic camera, or in a server, Qian only discloses initially transmitting the image data and the base layer, and separately transmitting the second layer upon selection from the user in the networking application. Qian, however, fails to disclose a distributively storing unit that **distributively stores compressed codes that have been divided for each hierarchical layer by the hierarchical coding unit into a storage unit of each of the other electronic components**, as

required by claim 2. As such, the cited combination fails to disclose all the limitations of claim 2.

Given that the Office action has failed to establish a prima facie case of obviousness and that the combination of the references would still fail to disclose all of the limitations of claim 2, Applicant respectfully submits that claim 2 is patentable over the cited references. Accordingly, Applicant requests that the rejection of claim 2 under 35 U.S.C. § 103(a) be withdrawn.

Applicant respectfully submits that claims 4, 7, 10, 12, and 15 are also patentable over the cited reference for similar reasons described above with respect to claim 2. Given that claims 8 and 16 depend from claims 7 and 15, respectively, which are patentable over the cited reference, Applicant respectfully submits that claims 8 and 16 are also patentable over the cited reference. Accordingly, Applicant requests that the rejections of claims 2, 4, 7-8, 10, 12, and 15-16 under 35 U.S.C. §103(a) be withdrawn.

Accordingly, Applicant respectfully submits that the rejection under 35 U.S.C. § 103(a) has been overcome by the amendments and the remarks. Applicant submits that claims 2, 4, 7-8, 10, 12, and 15-16 are now in condition for allowance and such action is earnestly solicited.

Accordingly, Applicants respectfully submit that the objections and the rejections have been overcome by the amendments and the remarks and withdrawal of these rejections is respectfully requested. Applicants submit that Claims 1-16 as amended are in condition for allowance and such action is earnestly solicited.

If there are any additional charges, please charge Deposit Account No. 02-2666 for any fee deficiency that may be due.

Respectfully submitted,

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